

KOLKATA SECTION

Geo code R0 01 37

2018

PART A - SECTION SUMMARY

A.1 Executive Summary

- IEEE Kolkata section **Social Meet** was organized at **Titagarh Jute Mill** (NJMC Kinnison Unit) on **Sunday 11th February 2018**.
- Kolkata Section was honored to be a part of the IEEE India Council Mini-POCO-2018, on 20th May 2018, at Hotel Palm Beach Vishakhapatnam, Andhra Pradesh, India and on 10th November 2018, at NIT Calicut, India.
- On 3rd April 2018 IEEE ComSoc Kolkata Chapter in association with Jadavpur University Science Club organized Circuit Design Model Contest.
- Kolkata Section had organized a technical lecture by Prof. Vincenzo Piuri, former member of the IEEE BoD, Vice President Technical Activities on Monday 24.09.2018 at SV Auditorium, Heritage Institute of Technology, 9:30am. Title: Ambient intelligence: convergence of artificial intelligence, machine learning, biometrics, cloud computing, internet-of-things.
- Kolkata Section had organized a technical lecture by Prof. Vincenzo Piuri, former member of the IEEE BoD, Vice President Technical Activities on Monday 24.09.2018 at University of Calcutta, 12:15 pm. Title: Computational Intelligence models for Solar Energy Applications
- Kolkata Section had organized a technical lecture by Prof. Vincenzo Piuri, former member of the IEEE BoD, Vice President Technical Activities on Monday 24.09.2018 at Amitava Dey Memorial Hall, Dept. of Computer Science & Engg. (4th floor of the NEILIT wing), Jadavpur University, 4:00pm.
- Kolkata Section had organized a lecture meeting by Prof. Vincenzo Piuri, former member of the IEEE BoD, Vice President Technical Activities on Monday September 24, 2018 at The Calcutta Club at 6.30 p.m.
- **IEEE Patna Subsection** was approved by the IEEE Member and Geographic Activities Board on June 23, 2018.
- IEEE Kolkata section has received **Outstanding Section Membership Retention Performance Award, 2018**.
- **Prof. Sanghamitra Bandyopadhyay**, is the Winner of **2018 TWAS (The World Academy of Sciences) Prize of India**, for her outstanding contributions in computational biology, multi objective optimization and genetic algorithm-based classification and clustering techniques.
- **Dr. Sushmita Mitra**, Professor, Head, Machine Intelligence Unit, Indian Statistical Institute, Kolkata, has been elected a **Fellow of Indian National Science Academy (INSA) for 2019**.
- **Dr. Amitava Chatterjee**, Professor, Department of Electrical Engineering, Jadavpur University has been elected **Fellow of Indian National Academy of Engineering (FINAE) in 2018**.
- **Prof. Debatosh Guha**, Professor, Institute of Radio Physics & Electronics, University of Calcutta, has been invited to serve IEEE Fields Awards Committee (APS) for 2018-19.
- Received Incentive Grant of **USD3,000** from IEEE R10 as incentive grants on 5th Dec 2018 for the submitted Sections/ Council reports, which have been evaluated by R10 Awards & Recognitions Committee and R10 Operations Committee.

- On **25th September, 2018** (5.30 p.m.) at Semiar Hall, Electrical Engineering Department of Jadavpur University, **Ms. Kristen MacCartney, IEEE University Partnership Programme Manager** met with all Student Branch Counselors, Student Chapter Chairs and two student members from each Student Branches to discuss the benefits of IEEE student Branches and IEEE Student Branch Chapters.
- **IEEE GRSS Kolkata Chapter** attracted financial support of **USD 15000** in 2018.
- **SMIT Student Chapter** (under formation) received a **GRSS Student Grand Challenge Award** in 2018 (USD 6000).

A.2 List of Section Officer and Executive Committee Members

1	Sujit K. Biswas	Chairman
2	Kesab Bhattacharyya	Chairman-Elect
3	Sanjay Kar Chowdhury	Vice-Chairman
4	Atanu Kundu	Secretary
5	Debangshu Dey	Treasurer

Members		Elected Officials	
1	Mita Nasipuri	1	Chandan K Sarkar Immediate Past Chair
2	Iti Saha Misra	2	Chair AP-MTTS Chapter
3	Madhubanti Maitra	3	Chair CAS Chapter
4	Nibaran Das	4	Chair CIS Chapter
5	Amitava Chatterjee	5	Chair Computer Chapter
6	Arijit Basu Ray	6	Chair COMSOC Chapter
7	Anup Dandapat	7	Chair DEIS Chapter
8	Kaushik Das Sarma	8	Chair EDS Chapter
9	Koushik Dutta	9	Chair GRSS Chapter
10	Bhaskar Gupta	10	Chair IAS Chapter
11	Tridibesh Nag	11	Chair PES Chapter
12	Rajarshi Gupta	12	Chair Photonics Chapter
13	Chandreyee Sarkar	13	Chair YP Affinity Group
		14	Chair WIE Affinity Group
		15	Chair CSS-IMS Chapter
		16	Chair SSC Chapter
		17	Chair Signal Processing Chapter
		18	Chair Bhubaneswar Sub-section

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programmes

Total Member: 3374

Effort in Membership Development:

- **Ms. KristenMac Cartney, IEEE University Partnership Programme Manager** visited Kolkata to discuss the benefits of IEEE student Branches and IEEE Student Branch Chapters at Semiar Hall, Electrical Engineering Department of Jadavpur University on 25th September, 2018.
- Winners of "Outstanding Section Membership Retention Performance Award, 2018", IEEE Kolkata section has received **Outstanding Section Membership Retention Performance Award, 2018**.

Evidence of retention of members:

- Each default member is contacted through email / mobile phone and persuaded to renew his / her membership.

B.2 Chapter Activities

Total Active Chapters: 15

India Council Chapter : 1

Region	Council	Section	Grade Category	Grade	Total
R10	India Council	Kolkata Section	IEEE Grades	Associate Member	18
				Fellow	8
				Graduate Student Member	736
				Life Fellow	2
				Life Member	3
				Life Senior	24
				Member	1,375
				Senior Member	296
				Student Member	909
				Other Grades	Affiliate
				Individual	1
				Total	3,389
				Total	3,389

AP/MTT

• Seminar and Workshop:

- IEEE AP/MTT Joint Chapter, Kolkata has organized a Lecture Meeting Program “Floquet modal based Analysis of Finite and Infinite Phased Array Antennas” and “Advanced Horn structures for Reflectors and Phased Arrays”. on 19th February, 2018 at SAMEER Kolkata Centre, Salt Lake Electronics Complex, Plot-L2, Block-GP, Sec-V, Kolkata- 700091. Participant 44(24 IEEE+ 20 Non-IEEE). Speakers: Dr. Arun K. Bhattacharyya from Lockheed Martin Space Systems, Colorado, USA
- Lecture Meeting Programme “Computational Intelligence models for Solar Energy Applications”. was organized by the IEEE AP/MTT Joint Chapter, Kolkata on Monday 24th September, 2018 at the M N Saha Auditorium, Rajabazar Campus, 92, A.P.C. Road, Kolkata 700009, University of Calcutta. Total participants 72(30 IEEE+ 42 Non-IEEE). Speaker: Prof. Vincenzo Piuri, from University of Milan, Italy.
- AP-MTTs KOLKATA CHAPTER organised a one-day lecture meeting on October 9, 2018 at the A N Daw Meeting room, Science College Campus at Rajabazar. Speakers:
Dr. Arnab Roy of Inter Digital Communications, USA works on technology development for next generation cellular and WLAN systems and enlightened the participants on the latest 5G technologies and their applications. It was a highly interesting and motivational lecture.
Dr. Archita Banerjee from Carlisle Interconnect Technologies, USA gave her talk on for RF connector design for defense, space and other specialized applications. It was highly informative for the RF designers and engineers.
- IEEE APS Student Branch Chapter of IEST, Shibpur was inaugurated on 31st October, 2018 at Alumni Seminar Hall, IEST, Shibpur by Prof. Buon Kiong Lau from Department of Electrical and Information Technology, Lund University, SE-221 00 Lund, Sweden.
- This chapter has organized a One Day event as Students Colloquium on Tuesday, 1 May 2018 at Ibiza Resort (Merlin Greens). The event was a special initiative to motivate student members, where they presented their recent research activities. The event was a huge success, where total 20 members/student members participated.

- The IEEE AP-S CU Student Branch Chapter organised a social meet at Haringhata (Ionosphere Field Station) on 6th Jan, 2018. Around 20 participants spend the whole day with various technical and social activities, including a lunch organized and served in open air garden. Few technical talks were delivered by our chapter leaders and Students.
- **DL Programme:**
IEEE AP-MTTs KOLKATA CHAPTER in association with Calcutta University APS-SBC organised a Distinguished Lecture on March 13, 2018 at the CRNN, Salt lake Campus, University of Calcutta. Dr. Yahia M. M. Antar, the speaker of the day is Professor & Canada Research Chair in EM Engg. Royal Military College & Queen's University, Canada. He delivered his lecture on Antennas for Wireless Communications & for sensors: Some Recent Advances & Future Trends.
- An APS DL was organized on 31st October, 2018 at Alumni Seminar Hall, IEST, Shibpur. The lecture on "Terminal Antenna Design for Future Wireless" was delivered by Prof. Buon Kiong Lau from Department of Electrical and Information Technology, Lund University, SE-221 00 Lund, Sweden.
- **Major Event**
 - The first edition of the **Indian Conference on Antennas and Propagation (InCAP 2018)** was successfully held during 16-19 December 2018 at Hyderabad. Dr Satheesh Reddy, Director of DRDO and Secretary to Ministry of Defence, India had inaugurated InCAP 2018 which has been a great success with about 405 attendees and 24 sponsors and exhibitors.
IEEE AP/MTT-S Kolkata Chapter played a key role in the inception of InCAP by merging two major events of the chapter - IEEE AEMC (since 2007) and Indian Antenna week (since 2010) and also by the technical sponsorship.
 - IEEE AP-MTTs Kolkata Chapter has conceptualized 'ADVANCED SCHOOL OF ANTENNAS (ASA)' as a yearly weeklong 2-credit point equivalent Summer School with the aim to offer advanced courses on different areas of antenna engineering. The first edition of ASA was held at KIIT, Bhubaneswar during 22-26 June 2018 and was organized in association with CU and KIIT Student Branch Chapters of IEEE AP-S. This year's theme was Basic Antenna Theory and Techniques comprising 7 modules which were offered by the leading antenna experts of the country. This was attended by 55 participants from different IITs, NITs, universities, national Labs and industries.

CASS

Technical Lectures

- New Similarity Measures for Nonlinear Time Series Analysis delivered by Prof. (Dr.) Basabi Chakraborty. Professor of Iwate University, Japan on 1st March, 2018 at Seminar Hall of Department of Information Technology, IEST, Shibpur.
- Cutting –edge Perspectives of Intelligent System Development for Social Cause; delivered by Dr. Rajat Shubra Chakraborty, Dept. of Computer Science, IIT Kharagpur, Prof. Amitava Chatterjee, Dept. of Electrical Engineering, Jadavpur University, Jadavpur, and Dr. Debangshu Dey, Dept. of Electrical Engineering, Jadavpur University, Jadavpur, on 27 July, 2018 at Seminar Hall, Electrical Engineering Dept., JU, Kolkata.
- Internet of Things & Embedded Controller in perspective of recent trends delivered by Prof. Joyanta Kumar Roy, Chair, IEEE CASS, R-10, Kolkata on 19 September 2018 at Amity School of Engineering and Technology, Amity University, Kolkata.
- Embedded System related to the Internet of Things delivered by Prof. Joyanta Kumar Roy, Chair, IEEE CASS, R-10, Kolkata on 05 October, 2018 at Asansol Engineering College, Asansol, WB, India.
- **DL Programme:**
An IEEE CASS Distinguished Lecture Programme was organized by this Chapter, at Seminar Hall of Department of Information Technology, IEST, Shibpur on 18th April 2018. The speaker, Prof. Subhas Chandra Mukhopadhyay, School of Engineering, Macquarie University, Sydney, Australia, delivered the DL talk on "WSN, Smart Homes and Intelligent Buildings: From Sensors to Computing". Total participants 96.
- **Collaboration :**
The CAS Chapter of IEEE Kolkata Section extended collaborative hands to organized One day Workshop on Energy Conservation Road Map: Present and Future Trends Jointly with Electrical

Engineering Dept., Jadavpur University, Jadavpur Main campuson 20 December,2018 at DepartmentofElectricalEngineering,JadavpurUniversity.

Speakers:

Speaker: 1

Prof. Suddhasatwa Chakraborty Electrical Engineering Department, Jadavpur University

Topic: "Human Centric Intelligentlighting, aprotocol shift in the field of Illumination Engineering."

Speaker: 2

Prof. Susanta Ray Electrical Engineering Department, Jadavpur University.

Topic: "Efficient Electrical energy conversion".

Speaker: 3

Prof. Dr. Joyanta Kumar Roy Chairman, IEEE CASS, Kolkata section Consultant: GKW Consultant Gmbh, Director: System Advanced Technologies Pvt. Ltd

Topic: "Present and Future Trends in Smart Technology to Save Energy".

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New Student

IEEE CASS Student Branch Chapter of Narula Institute of Technology, Agarpara Kolkata was inaugurated on 28th November, 2018 at Seminar Hall, Narula Institute of technology, Agarpara, Kolkata by Prof. Sujit Kumar Biswas, Chairman IEEE Kolkata Section and Prof. Joyanta Kumar Roy, Chairman IEEE CASS Kolkata.

- **Student chapter activities**

- The IEM IEEE Circuits and Systems Society (CASS) Student Branch has also organized one Guest Lecture on "Overview of IBM Systems Technology Group" by Barin Bhattacharya, System Engineer IBM, Singapore on January 18 , 2018 at VLSI Lab IEM Kolkata.
- The IEM IEEE Circuits and Systems Society (CASS) Student Branch has also organized one Guest Lecture on "Future prospect in VLSI Technology "bySumanChakraborty, Engineer, Qualcomm on April 4 , 2018 at Seminar Hall, IEM Kolkata.
- The IEM IEEE Circuits and Systems Society (CASS) Student Branch has also organized one Guest Lecture on "Image Processing with Dipole Coupled Nanomagnets"by Prof. SupriyoBandyopadhyay, Professor of the Department of Electrical and Computer Engineering, Virginia Commonwealth UniversityonJuly 12 , 2018 at Seminar Auditorium IEM Kolkata.

Computer

Technical Lectures

- Prof. Shikharesh Majumdar, Real Time and Distributed Systems Research Centre, Dept. of Systems and Computer Engineering, Carleton University in Ottawa, Canada, has delivered a lecture on Leveraging Cloud Computing and IoT Technology for Supporting Smart Systems at A. Dey Memorial Hall (ADMH), 4th Floor on January 8, 2018, 3:30 pm.
- Dr Jacek Sroka, University of Warsaw, Poland has delivered a lecture on Bigdata processing using Hadoop/MapReduce/Spark, at A. Dey Memorial Hall (ADMH), 4th Floor, Department of Computer Science & Engineering, Jadavpur University, on February 9, 2018, 4 pm.
- Prof. Florin Popențiu Vlădicescu, University "Politehnica" of Bucharest, Faculty of Automatic Control and Computer Science has delivered a lecture on Reliability of Multi-agent systems, at A. Dey Memorial Hall (ADMH), 4th Floor, Department of Computer Science & Engineering, Jadavpur University on April 5, 2018, 4:00 pm.
- Mr. Shounak Samanta delivered a Tutorial on Python, at Alpha Lab, Department of Computer Science & Engineering, Jadavpur University. on June 25, 2018 at 10:30 am.
- Mr. Rajib Bandyopadhyay and Mr. Himadri Sekhar Ray gave a Hands on session on Hadoop, at Alpha Lab, Department of Computer Science & Engineering, Jadavpur University on June 25, 2018 at 12:00 pm .
- Dr. Shameek Bhattacharjee, Post-Doctoral Research Fellow, Dept. of Computer Science, Missouri University of Science & Technology, Rolla, MO, USA, has delivered a lecture on Trustworthy Frameworks for addressing Cyber-Physical and Human Aspects of Information Security in Smart Connected Communities, at A. Dey Memorial Hall (ADMH), 4th Floor, Department of Computer Science & Engineering, Jadavpur University on June 25, 2018 at 2:30 pm.

- Prof. Vincenzo Piuri, FIEEE, Full Professor in Computer engineering at the Università degli Studi di Milano, Italy (since 2000) has delivered a lecture on Ambient intelligence: convergence of artificial intelligence, machine learning, biometrics, cloud-computing, and internet-of-things at A. Dey Memorial Hall (ADMH), 4th Floor, Department of Computer Science & Engineering, Jadavpur University on September 24, 2018 from 4 PM .

COMSOC

RAIT -2018, ComSOC Technical Sponsor International Conference

The fourth international conference on recent advancement of Information Technology was held in the Computer Science department of ISM (IIT) Dhanbad during 15-17 March 2018 in which ComSOC Kolkata chapter was one of the technical sponsor.

Technical Lectures and Seminars:

- On 8th January 2018, IEEE ComSoc organized a Lecture meeting at Room No T-3-13, ETCE Department, Jadavpur University. Dr. Amar Nath Ray from USA, Ex-Director of networks for Teletch team (T3), now a company owner of ATTC delivered lecture on the topic of “Advancement in Communications over Packet Based Networks”, where about 60 participants were there. It was a very live interactive session. Prof. Ray later discussed the possibility of some collaborative work in Wireless Communication in my Department and specially talked with few students.
- On 6th July 2018 IEEE Com Soc in association with Jadavpur University organized **One day Seminar on “Towards 5G Developments”** bringing leading Industry researcher at the Seminar Room of ETCE, 4th Floor, Jadavpur university. Eminent industry experts were among the speakers. There were three lectures: In the morning session Mr. Tarun Gupta from National Instrument, India, Business Manager spoke on Prototyping 5G using standard Off-the Shelf tools giving thrust to massive MIMO and Cloud RAN. In the after lunch session there were two lectures, first one was delivered by Mr. Indrajit Sanyal from Ericsson, Senior Director and Head of Cloud & Core, Business Unit Digital Services, on 5G - Out of the lab into the neighborhood, this was about actual 5G deployment scenario. The last lecture was delivered by Dr. Tamal Chakraborty, alumnus of ETCE, Jadavpur University, delivered on IoT based solutions for Intelligent Transportation System in Urban India by enabling key 5G Technologies.
- On 23 Nov 2018, IEEE ComSoc organized a One day seminar at the department of Computer Science and Engineering, Heritage Institute of Technology, Kolkata on the topic “**Advanced Graph Theory and its Applications in Wireless Networks**”. The speakers were Dr. Rogers Mathews, Asst. Prof from IIT Kharagpur, and Dr. Anindita Kundu Asst. Prof. from Heritage Institute of Technology, Kolkata. About 55 under graduate Computer Science and Engineering student of HIT have participated.
- On 16 Nov 2018, IEEE ComSoc Kolkata Chapter Participated in International Conference ‘INFOSEC GLOBAL 2018’ at Park Hotel Kolkata.
- On 6th Dec 2018, IEEE ComSoc Kolkata Chapter organized a technical lecture on “Design and Analysis of Macro/Femto Based Cognitive BWA Networks for Efficient Resource Management” delivered by Dr. Anindita Kundu Asst. Prof. from Heritage Institute of Technology, Kolkata at Broadband Wireless Communication Lab, ETCE Building.
- **On 5-6 th Dec 2018** The ComSoc Student Branch Chapter at NIT Silchar hosted an Industry Association Programme with Mathworks in association with Technical sponsorship of IEEE ComSoc Kolkata Section.
- **DL Programme:**
- Distinguished Lecturer Tour Programme (DLT) on Data Center Networking held on 23rd July 2018, delivered by Prof. Suresh Subramaniam, IEEE Fellow, Professor and Chair, Department of Electrical and Computer Engineering, George Washington University, Washington DC at Room No. T-3-7 of ETCE Department, Jadavpur University.
- **Out Reach Programmes**
- On 18 May 2018 Membership Development drive and opening of ComSoc Student Branch Chapter was held at NIT Silchar,
- On AGM day on Jan 15, 2018, COMSOC Kolkata Chapter awarded two best volunteers with framed certificates who worked throughout the year for the advancement of ComSoc Kolkata Chapter for which this chapter received the 5th time Chapter achievement award. The names of the awardees are Mr. Tanumay Manna and Mr. Arkodeb Bannerjee from the MSIT ComSoc Student Branch Chapter.

CSS-IMS

Technical Programme

- IEEE Joint CSS-IMS Kolkata Chapter in association with IET-UK Kolkata Local Network organized a One day seminar in Department of Applied Physics, University of Calcutta on 17th February, 2018 .
- Speakers:
 - Prof. Sujit Biswas, Jadavpur University
 - Prof. Partha Sarathi Sensharma, IIT Kanpur
 - Er. Alekhya Datta, The Energy Research Institute (TERI)
 - Er. Abhishek Ghosh, Exide India LtdAttendees: 90
- A Two day Seminar on “Computational Intelligence in Signal Power and Control (CISPC-2018)” on 22nd-23rd March, 2018 was organized by the Department of Electrical Engineering, Future Institute of Engineering and Management, Sonarpur, Kolkata (W.B.) with a technical cosponsored by IEEE Joint CSS-IMS Kolkata Chapter Kolkata Section.
- Speakers:
 - Prof. Amitava Chatterjee, Jadavpur University
 - Dr. Kaushik Das Sharma, University of Calcutta
 - Dr. Swagatam Das, ISI Kolkata
 - Dr. Pratyusha Rakshit, Jadavpur UniversityAttendees: Students: 150.
- IEEE Joint CSS-IMS Kolkata Chapter Kolkata Section in association with Institution of Engineering and Technology (IET) and the Institute of Electrical and Electronics Engineers Technical Co-Sponsored the First International Conference on “Contemporary Advances in Innovative and Applicable Information Technology” (ICCAIAIT 2018) during March 24-25, 2018 at Kingston Educational Institute campus at Berunanpukuria, Barasat, Kolkata-700126.
- IEEE Joint CSS-IMS Chapter, Kolkata Section, and Electrical Engineering Department, IEST, Shibpur jointly organized a technical lecture session on 29th August, 2018.
- Speaker:
 - Mr. Debabrata Sarkar, Chief Engineer, Instrumentation and Control, KatarKenz, W.L.L .
- A National Conference on “Control, Signal Processing & Energy Systems” (CSPEs 2018) organized by the Department of Electrical Engineering, B. P. Poddar Institute of Management and Technology on 16th to 18th November, 2018. This Conference was technically supported by CSS IMS Joint Chapter IEEE Kolkata Network and WEBREDA, Department of Power and N. E. S West Bengal andorganised in collaboration with IET (The Institution of Engineering and Technology) Kolkata Network, Globsyn, and Bank of Baroda. A total 135 number of participants are present in this event.

CIS

Technical Programme

- The Third Annual Coding Competition (CODECOM 2018) was organized at Department of Computer and System Sciences, Visva-Bharati on 11th March 2018 in technical collaboration with IEEE Computational Intelligence Society, Kolkata Chapter.
- IEEE Computational Intelligence Society, Kolkata Chapter organized a Short-Term Course on **Brain-Computer Interfacing for Rehabilitative Robotics** was organized in the Department of Electronics and Tele-Communication Engineering (ETCE), **Jadavpur University (JU), main Campus**, Kolkata during **27-29 March, 2018**.
- On 12th April, 2018 IEEE Computational Intelligence Society organized a One Day Seminar on BRAIN INSPIRED COMPUTATIONAL INTELLIGENCE. Dr. Basabdatta Sen Bhattacharya introduced the overall area of brain-inspired computational intelligence then, she presented her recent experiences of modeling brain-inspired neural network on a brain-inspired hardware, called the SpiNNaker machine. In the final part of the talk, she presented her own contribution to the area of population modeling of neural networks, which has immense potential to clinical neuroscience.
- IEEE Computational Intelligence Society, Kolkata Chapter organized IEEE CIS — Intel AI Academy One Day Workshop on 13th July, 2018.

- **DL Programmeme**

- Prof. Rudolf Kruse, Professor at the Faculty of Computer Science in the Otto-von-Guericke University of Magdeburg, Germany has given a lecture on 16th November, 2018.
- Prof Rudolf Kruse, Professor, Faculty of Computer Science, Otto-Von-Guericke University, Magdeburg, Germany delivered the lecture on “Intelligent Assistant Systems in Automotive Industry: Methods for Decomposition, Learning and Fusion” on 17th November, 2018 at the Bansuruguru auditorium of Campus 1 of SikshaO Anusandhan, Deemed to be University Bhubaneswar, India.

DEIS

Technical Programmeme

- Dr. Biswendu Chatterjee, Dept. of Electrical Engineering, Jadavpur University, Kolkata, India has given a lecture on High Voltage Power Supply: Microcontroller Based Control Techniques at Seminar Room, Electrical Engineering Department, Jadavpur University, Kolkata, on 11th July, 2018. Participants: 44 (IEEE-6; Non-IEEE-38).
- Dr. Arpan Kumar Pradhan, Dept. of Electrical Engineering, Jadavpur University, Kolkata, India has given a lecture on Condition Monitoring of High Voltage Equipment at Seminar Room, Electrical Engineering Department, Jadavpur University, Kolkata, on 19th September, 2018. Participants: 32 (IEEE-6; Non-IEEE-22).
- **Student Activity:**
Circuistic of Convolution 2018 Organized by Students of the Department of Electrical Engineering, Jadavpur University in Collaboration with IEEE DEIS Kolkata Chapter at Electrical Engineering Department Jadavpur University, 23rd-25th February, 2018.
- **Workshop:**
DEIS Kolkata Chapter has organized a 5 day workshop titled **Advanced Renewable Energy System and its implications on Electrical Insulation (ARESIEI-2018)** from 19th-23rd February, 2018 at Electrical Engineering Department, Jadavpur University.
Participants: 61.

Speakers:

Prof Saibal Chatterjee, Professor, Dept of Electrical Engineering, NERIST
Prof Debasish Chatterjee, Professor, Dept of Electrical Engineering, Jadavpur University
Prof S Gao, Professor, Dept of Electrical Engineering, NERIST
Mr. Sudipto Poddar, Field Engineer, Marketing, Quarbz Info Systems
Mr. Pranay Kumar, Application Engineer, Quarbz Info Systems

EDS

Technical Programmeme

- The ED Calcutta Chapter and IEEE Techno India-Batanagar Student Branch in association with ED Calcutta University Student Branch Chapter jointly organized one day Technical talk on "Low Power VLSI Design" by Dr. Soumya Pandit, Assistant Professor, Institute of Radio Physics and Electronics, University of Calcutta, SRC Vice Chair, IEEE Electron Devices Society, Region 10, Past Chair, IEEE EDS Calcutta Chapter on : 20th February, 2018
- The ED Calcutta Chapter and IEEE Techno India-Batanagar Student Branch, in association with Dept. of ECE will organize one day IEEE EDS DL Talk on “Future Challenges and Advanced Innovations in VLSI Design” by Prof. (Dr.) Subir Kumar Sarkar, Senior Member IEEE & IEEE Distinguished Lecturer of Electron Device Society, Professor & Former Head, Department of Electronics and Telecommunication Engineering, Jadavpur University on 29th March, 2018.
- Outreach Programmeme was organized in Silicon Institute of Technology on 24th February, 2018. Almost 60 peoples attended the Programmeme out of which twenty IEEE members and ten student members attended. Prof. Chandan Kumar Sarkar delivered an IEEE EDS DL talk on this occasion.
- The one-day IEEE EDS outreach Programme was successfully organized by ECE Department, RCCIIT and sponsored by IEEE EDS Kolkata Chapter on 10th June, 2018. Dr. Angsuman Sarkar, Prof. Subir K

Sarkar and Dr. Manash Chanda delivered talks in the Programme. Prof. Subir K Sarkar delivered an IEEE EDS DL talk in the Programme.

- The one-day IEEE EDS outreach Programme was successfully organized by ECE Department, GNIT and IEEE EDS Kolkata Chapter on 4th September, 2018. Dr. Angsuman Sarkar, Prof. Chandan K Sarkar and Dr. Manash Chanda delivered talks in the Program. Prof. Chandan K Sarkar delivered an IEEE EDS DL talk in the Program.
- IEEE ED Kolkata Chapter arranged an EDS Outreach Program on 17th December, 2018 at Acharya Prafulla Chandra College, Sajirhat, New Barrackpore to develop the professional identity in IEEE's designated fields of interest in technology and engineering among the students and faculty members. In addition, membership benefits have been discussed also. Prof. Sanatan Chatterjee, IRPEL, Calcutta University; Dr. Angsuman Sarkar, Chairman, IEEE ED Kolkata Chapter and Dr. Atanu Kundu, Ex Chair, IEEE ED Kolkata Chapter delivered technical talks in this outreach Program.
- **MQ Programme**
 - IEEE EDS Kolkata Chapter and IEEE ED KGEC SBC jointly organize the mini Colloquium on 26th July. Three IEEE EDS DL, Prof. Subir K Sarkar, Prof. Yogesh S Chauhan and Prof. G. N. Dash delivered the DL talks in the Program. Almost twenty IEEE members and seventeen IEEE student members attended the MQ. All the attendees immensely benefitted from the talk.
 - **Conferences**
 - IEEE ED Kolkata Chapter has organized Electron Device Kolkata Conference (IEEE EDKCON) 2018 on 24th-25th November, 2018 at Pride Plaza, Kolkata. IEEE EDKCON 2018 received an overwhelming response from the authors, both academia and industry. It received a total of 338 submissions from varied locations and institutes out of which 129 was accepted. Total 149 Reviewers from India and Abroad has been assigned for review process. Almost fifteen Honourable IEEE EDS Distinguished Lecturer (DL) and seven Honourable IEEE Fellow Members were associated with IEEE EDKCON 2018.
 - **Sponsored Workshops / Project Contest**
 - On 23rd February, 2018, a technical project competition has been organized by IEEE EDS Kolkata Chapter and IEEE Techno India – Batanagar Student Branch. More than 80 projects were demonstrated by the engineering and school students. Prof. (Dr.) Angsuman Sarkar, Chair, IEEE EDS Calcutta Chapter and Prof. (Dr.) Manash Chanda, Secretary, IEEE EDS Calcutta Chapter judged the competition under the project category of ECE & EE division. More than 150 students participated in the project competition including around twenty number of IEEE student members.
 - Two days National Workshop on Recent Trends in VLSI Devices & Circuits (RTVDC-2018)" on 23rd& 24th February 2018 was organized by The Departments of Electronics & Communication Engg. and Applied Electronics & Instrumentation Engg. in association with IEEE EDS Bhubaneswar-Kolkata Chapter & IEEE ED KGEC SB Chapter at Silicon Institute of Technology, Silicon Hills, Patia, Bhubaneswar, Odisha-751024. Almost 70 people attended the Program out of which twenty IEEE members and sixteen student members attended.

GRSS

Technical Programme

- Dr. Emmett Ientilucci, Rochester Institute of Technology and Prof. Ashish Ghosh, Indian Statistical Institute delivered a talk on Data Science at National Institute of Technology, Silchar on January 25, 2018. Number of people in attendance 60.
- Dr. Abhirup Datta, IIT Indore delivered a talk on Observational Cosmology at Low Radio Frequencies Prospects with the Square Kilometre Array on June 28, 2018. Number of people in attendance 20.
- Prof. Animesh Maitra, Institute of Radio Physics and Electronics, University of Calcutta delivered a talk on Fundamentals Of Radio Wave Propagation at Netaji Subhash Engineering College, Kolkata on August 24, 2018. Number of people in attendance 84.
- Prof. Ananda Shankar Chowdhury, Department of ETCE, Jadavpur University, Kolkata delivered a talk on VIDEO AND IMAGE PROCESSING at Netaji Subhash Engineering College, Kolkata on October 9, 2018. Number of people in attendance 30.

- **Workshop**
- Workshop on Remotely Sensed Big Data Analysis and Mining was organized at Center for Soft Computing Research, Indian Statistical Institute, Kolkata during Jan 23-24, 2018. No of Participants 23.
- Workshop on Digital Geometric Algorithms, Applications and Prospective Future Directions at IIIT Kalyani, Kolkata on October 28 –30, 2018. Number of people in attendance 55.
- National Workshop On Remote Sensing & Signal Processing organized at Guwahati University, Gauhati, Assam on November 26-December 2, 2018. Number of people in attendance 45.
- **DL Programme**
- Distinguished lecture by Prof. A. C. Frery, Brazil on “Statistical Information Theory And Geometry For Sar Image Analysis” was organized at Center for Soft Computing Research, Indian Statistical Institute, Kolkata on February 13, 2018 at 3.30 pm. Number of people in attendance 30.
- *Distinguished lecture by Prof. A. C. Frery, Brazil on “Statistical Information Theory And Geometry For Sar Image Analysis” was organized at Netaji Subhash Engineering College, Kolkata on February 14, 2018 at 2.30 pm.. Number of people in attendance 50.*
- Distinguished lecture by Prof. W. Blackwell, MIT Lincoln Lab on “Overview of The Nasa Tropics Cubesat Constellation Mission” was organized at Indian Statistical Institute, Kolkata on October 30, 2018 at 3.30 pm. Number of people in attendance 50.
- **Outreach Programme**
- International School on Deep Learning in SAR and Hyper spectral Remote Sensing (DL-SHyRS) organized at ISI, Kolkata from October 29-November 2, 2018. No of Participants 50.
Speakers:
 - Prof. Avik Bhattacharya, IIT Mumbai
 - Prof. Ashish Ghosh, ISI Kolkata
 - Prof. Naresh M, NRSC Hyderabad
 - Prof. B.S. Dayasagar, ISI Bangalore
 - Prof. Saurabh Das, IIT Indore
 - Prof. Sonali Agarwal, IIIT Allahabad
 - Prof. W. Blackwell, MIT Lincoln Lab

PES

Technical Programme

- Mr. Udayan Ganguly has given a lecture on “Experience with using Smart Energy Meters” at Seminar Hall, Electrical Engg. Dept, Jadavpur University, Kolkata-132 on January 05, 2018. Participants: 54(IEEE-16; Non-IEEE-38).
- Prof. Sivaji Chakravorti, Director, NIT, Calicut has given a lecture on “Basics of Partial Discharge” at Seminar Hall of HV Engg. building, Jadavpur University, Kolkata-32, on January 15, 2018. Participants: 59 (IEEE-17; Non-IEEE-42).
- Mr. Jayanta Ranjan Bhattacharya, Chief Advisor-Planning, CESC Limited, has given a lecture on “Design & Planning of Urban Distribution Network” at Seminar Room, Electrical Engineering Department, Jadavpur University, Kolkata 700032, on 28th September, 2018. Participants: 52(IEEE-9; Non-IEEE-43).
- **DL Programme**
- Distinguished lecture of Dr. Hermann Koch on “Solution for Sustainable Technology: Application for Gas Insulated Substation” was organized at K.P. Basu Memorial Hall, Jadavpur University, Kolkata-32 on February 05, 2018. Participants: 82(IEEE-18; Non-IEEE-64).
- **Outreach activity**
- Algomaniac of Convolution 2018, organized by Students of the Department of Electrical Engineering Jadavpur University in Collaboration with PES Kolkata Chapter in collaboration with PES Kolkata Chapter, was a competition where students from various institutions in groups took part in coding on 23rd-25th February, 2018.
- **Women Activities:**
- IEEE PES Chapter, Kolkata Section organized a Technical Essay competition for female students on 30th September, 2018 at Electrical Engineering Department, Jadavpur University. Participants: 22

Photonics

- The IEEE Photonics Society Kolkata Chapter jointly with IEEE Calcutta University Student Branch organized **3rd Science and Technology Exhibition -2018 (STEX'18)** on 5th October 2018 at the Institute of Radio Physics and Electronics of the University of Calcutta.
- **Technical Programme**
- Technical Lecture Session on "Mode indices/ impedances in the evaluation of resonant mode of 2D Photonic crystals-Pertinent to PCSELS" Institute of Radio Physics and Electronics. Speech delivered by Dr. Jayanta Sarma, University of Bath, UK. 15.06.2018.
- Prof. Vincenzo Piuri, University of Milan, Italy has given a lecture on "Artificial intelligence models for solar energy applications" at Meghnath Saha Auditorium, Rajabazar Science College, 24.09.2018.
- **Outreach Programme:**
- The IEEE Photonics Society Calcutta Chapter jointly with IEEE Calcutta University student branch organized an outreach Program on 10th March, 2018 in Badaldih High School, Purulia to celebrate National Science Day. There were around 110 students (Class IX – XI) from Badaldih high school and some other schools from neighboring areas. IEEE student branch and IEEE Photonics Society members demonstrated several Hands-on models on basic and applied sciences. The Program was very successful which was reflected from the feedback of students and teachers. They also requested us to organize such Program in future.
- **Workshop:**
- IEEE Photonics Society (PS) Kolkata Chapter organized one-day workshop under "Women in Photonics" initiative on 27th November, 2018 at the Institute of Radio Physics and Electronics, University of Calcutta. 5 women researchers from different institutes delivered their research work on Photonics.

Signal Processing

Technical Programme

- Technical Lecture Session on "Morphological Filter – A Time Domain Approach" at Dr. Triguna Sen Auditorium, Jadavpur University, Kolkata-. Speech delivered by Prof. (Dr.) Sivaji Chakravorti, Director, NIT, Calicut on 07 December 2018.
- On 23rd, 24th & 25th February, 2018, SPS Kolkata Chapter organized PAPIER of Convolution 2018 at Electrical Engg. Dept, Jadavpur University. There were 25 teams i.e. 50 participants (Including Government & Private from all over West Bengal) taking part in this Quiz Competition.
- On March 31, 2018, SPARKZ – 2K18 (An Inter College Electrical Quiz Competition) was organized at Pailan Technical Campus. There were 25 teams i.e. 50 participants (Including Government & Private from all over West Bengal) taking part in this Quiz Competition.
- On 2nd & 3rd November, 2018, ELECTRO – 2K18 (Two days' workshop on An Introduction to the Development of Microcontroller-based System using ARDUINO UNO) was organized at Pailan College of Management & Technology, Kolkata – 700104. There were 120 Participants (Including Government & Private from all over West Bengal Like Jadavpur University, BBIT, NIT, HIT etc.) taking part in this Two days' workshop.
- **National and International Conference**
IEEE Applied Signal Processing Conference (ASPCON 2018) was organized on 7th, 8th & 9th December, 2018 at Dr. Triguna Sen Auditorium & Dr. H L Roy Auditorium, Jadavpur University. There were 150 participants including 40 IEEE members taking part in this conference. This conference include paper presentation as well as technical lecture on Morphological Filter – A Time Domain Approach.

SSCS

Technical Programme

- On 11th January, 2018 IEEE SSCS Kolkata Section organized a Technical Talk on "*Application of FPGA in Modern Day Electronic Systems*" at Department of ECE, **MEGHANAD SAHA INSTITUTE OF TECHNOLOGY**.

- During 22nd, 23rd& 24th September 2018, IEEE SSCS Kolkata Section Technically sponsored a workshop on " PCB Design & Fabrication" .
- On 3rd April, 2018, IEEE SSCS Kolkata Section organized a Technical workshop on "Embedded Systems and Microcontrollers" for women.

B.3 Formation of New Student Branch

Newly formed Student Branches (SB) / Student Branch Chapters (SBC)

SI No.	Unit Name	Geo-code	Formation date
1	INSTITUTE OF ENGINEERING & MANAGEMENT Communications Society Student Branch Chapter	SBC14301C	February 16, 2018
2	INSTITUTE OF ENGINEERING & MANAGEMENT Computational Intelligence Society Student Branch Chapter	SBC14301E	March 15, 2018
3	Indian Instt of Engg Science & Tech- SHIBPUR Engineering in Medicine and Biology Society Student Branch Chapter	SBC20125B	March 15, 2018
4	Netaji Subhash Engineering College Geoscience and Remote Sensing Society Student Branch Chapter	SBC15115I	April 11, 2018
5	Indian Instt of Engg Science & Tech- SHIBPUR Antennas and Propagation Society Student Branch Chapter	SBC20125C	May 25, 2018
6	National Inst of Technology - Silchar Women in Engineering Student Branch Affinity Group	SBA03701	July 9, 2018
7	Narula Institute of Technology to the IEEE Student Branch	STB14018	July 25, 2018
8	Chaibasa Engineering College to the IEEE Student Branch	STB14013	July 16, 2018
9	National Inst of Technology - Silchar Communications Society Student Branch Chapter	SBC03701C	September 5, 2018
10	Narula Institute of Technology Circuits and Systems Society Student Branch Chapter	SBC14018	September 2, 2018
11	Veer Surendra Sai University of Technology Burla to the IEEE Student Branch	STB11390	November 6, 2018
12	Brainware Group of Institutions Student Branch	STB11407	November 23, 2018
13	University of Engineering and Management - Kolkata Student Branch	STB11417	December 5, 2018
14	Sikkim Manipal Inst Of Tech Geoscience and Remote Sensing Society Student Branch Chapter	SBC09441	December 15, 2018

B.4 Affinity Group Activities

Total Affinity Groups: 03

YP- AG

- During 11-13 January 2018, 5th International Conference on Emerging Applications of Information Technology (EAIT 2018) has been organized at Indian Institute of Engineering Science and Technology (IEST), Shibpur, West Bengal.
- During 17-18 July, 2018 2nd International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA 2018) has been organized at Kalyani Govt. Engineering College, Kalyani, West Bengal, India
- On 8 February 2018 a technical lecture on "Chaos based Security and Authentication in Public Domain Communications" has been organized at Computer Science and Engineering Dept., Jadavpur University. Prof. J. K. Mondal, Department of Computer Science & Engineering, University of Kalyani, West Bengal has delivered invited lecture.

- On 24th Nov, 2018 a one day Seminar on “One day seminar on "Latex"” has been organized at Techno International New Town, Kolkata. Dr. Chintan Kumar Mandal, CSE Dept., Jadavpur University, Kolkata has delivered lecture.

WIE

- A one-day Workshop titled “**Application of MATLAB in Signal Processing**” was organized by IEEE WIE AG, Kolkata Section and, at **Digital Signal Processing Laboratory, Dept. of ETCE, Jadavpur University** on **06/04/2018** was organized for the students of Jodhpur Park Womens’ Polytechnic, Kolkata.
- A One-Day Workshop on “**Fundamentals of MATLAB**” was organized by IEEE WIE AG, Kolkata Section for the students of Jodhpur Park Womens’ Polytechnic, Kolkata. This workshop was held at Digital Signal Processing Laboratory, Dept. of ETCE, Jadavpur University, on 25/06/2018. Total number of participants was 12.
- The One-Day Computer Literacy Program on “**Computer is Fun**” was organized by IEEE WIE, Kolkata Section for the street children around the locality of IEST Shibpur, Howrah, in association with the Students Outreach Society “Icche” (the wish), Department of HSS, IEST, Shibpur, Howrah on 11/08/2018. A total number of 32 participants attended this Program.
- The All India Student – YP –WIE Congress (AISYWC’18) was held at Vidya Vikas Institute of Engineering and Technology, Mysore, India, during September 28 - 30, 2018. This congress was technically sponsored by IEEE India Council and IEEE Bangalore Section. AISYWC is the annual flagship event of IEEE India Council.
- WIE IEEE, Kolkata Section, handed over Cash Awards and Certificates of Appreciation at “International Microwave & RF Conference (IMARC - 2018)” held at Hotel Novotel, Kolkata, during 28/11/2018 to 30/11/2018 to motivate young researchers, especially students and research scholars.
IEEE WIE Kolkata Section handed over the following Cash Awards and Certificates:
- **WIE Best Student/Research Scholar Paper Award:** (Rs.3000/- Cash Prize and Certificate of Appreciation). Title of the Paper: Substrate Integrated Waveguide based Dual Mode Bandpass Filter using Metal via and Complementary Split Ring Resonators. Authors: Soumit Samadder Chaudhury, Seema Awasthi and Rajat Kumar Singh. Affiliation: Indian Institute of Information Technology, Allahabad
Recipient: Soumit Samadder Chaudhury.
- **WIE Student/Research Scholar Paper Award:** (Rs.2000/- Cash Prize and Certificate of Appreciation). Title of the Paper: Performance Enhancement of Wireless Power Transfer System by Controlling Transmission and Reflection Properties of Metamaterials. Authors: Abir Bhattacharya, Taraeswar Shaw and Debasis Mitra. Affiliation: Indian Institute of Engineering Science and Technology, Shibpur, West Bengal .
Recipient: Abir Bhattacharya
- One-day Program on “Visit to Robotics Laboratory” of the Department of Electronics & Telecommunication Engineering, Jadavpur University was organized by IEEE WIE Kolkata Section in association with the IEEE WIE, Kolkata Section jointly with Department of Electronics & Telecommunication Engineering, Jadavpur University on 10/12/2018. Students of Class IX from Jadavpur Vidyapith attended this Program.

B.5 Student Activity:

Netaji Subhash Engineering College Student Branch (2018)

Student Meet & Technical Lecture (NSEC SB)

- Student Meet & Technical Lecture on “Energy Savings Through Efficient Appliances & Line loss Reduction” by Prof. Dr. Sujit K. Biswas, Chairman IEEE Kolkata Section, at Netaji Subhash Engineering College, Techno City, Garia on 24th Aug 2018. Attendance: 70.

Events organized by IEEE EDS Student Branch Chapter, NSEC (2018)

Seminars

- One-Day Seminar On ‘Circuits and Devices 2017’ on 22nd September, 2017 where the following technical lectures were delivered by our eminent speakers (not reported in 2017):
 - ‘IEEE Member Benefits’ by Dr. Jawad Yaseen Siddiqui, University of Calcutta
 - ‘Integrated circuits design and its challenges’ by Dr. Debaprasad Das, Assam University
 - ‘Advanced MOSFET for analog/radio frequency circuits’ by Dr. Atanu Kundu, Heritage Institute of Technology, Kolkata
- A one-day seminar on ‘Electron Devices and Applications 2018’ by Dr. Soumya Pandit from Institute of Radiophysics and Electronics, University of Calcutta, on 20th March 2018.
- A one-day seminar on ‘Nanoscale Semiconductor Devices’ by Prof. Abhijit Biswas from Institute of Radiophysics and Electronics, University of Calcutta, on 3rd May 2018.
- A one-day seminar on ‘5G Communications’ by Dr. Ashutosh Dutta from Johns Hopkins University Applied Physics Labs (JHU/APL), New Jersey, USA on 4th August 2018.
- IEEE EDS Student Branch Chapter of Netaji Subhash Engineering College in association with IEEE EDS SBC of University of Calcutta organized a one-day seminar on ‘**VLSI Circuits and applications in industry**’ where **Mr. Sayantan Sharangi, AMD India Pvt. Ltd.** and **Mr. Avishek Bhattacharya, Hewlett Packard Enterprise** delivered their expert lectures on the mentioned topic on 10th October 2018 from 10 a.m. to 1 p.m. at APC Hall, NSEC.

Workshops

- Workshop for children of classes 11 and 12 of National Gems Higher Secondary School, Behala, Kolkata on 24th August 2018 on “Familiarization with various electronic components and snap circuits”.
- Workshop for children of class-12 of A. K. Ghosh Memorial School, Lake Gardens, Kolkata on 14th September 2018 on “Familiarization with various electronic components and snap circuits”.

DL

- IEEE EDS NSEC Student Branch Chapter in association with the Department of Electronics and Communication Engineering, Netaji Subhash Engineering College organized an IEEE EDS Distinguished Lecture on ‘**Recent advances in Tunnel Field Effect Transistor for sensing applications**’ on 24th November 2018 by **EDS Distinguished Lecturer Dr. Manoj Saxena** (Associate Professor, Department of Electronics, DeenDayal Upadhyaya College, University of Delhi) sponsored by the IEEE Electron Devices Society under its Distinguished Lecturer Program.

Events organized by IEEE GRSS Student Branch Chapter, NSEC (2018)

Seminars

- Prof. Animesh Maitra, Institute of Radio Physics and Electronics, University of Calcutta, delivered a talk on Fundamentals of Radio Wave Propagation at Netaji Subhash Engineering College, Kolkata, on August 24, 2018. Number of people in attendance 84.
- Prof. Ananda Shankar Chowdhury, Department of ETCE, Jadavpur University, Kolkata delivered a talk on Video and Image Processing at Netaji Subhash Engineering College, Kolkata on October 9, 2018. Number of people attended 30.

DL

- Distinguished lecture by Prof. A. C. Frery, Brazil on “Statistical Information Theory And Geometry For Sar Image Analysis” was organized at Netaji Subhash Engineering College, Kolkata on February 14, 2018 at 2.30 pm. Number of people attended 50.

ED Heritage Institute of Technology, Student Branch Chapter

- The IEEE EDS Center of Excellence, Heritage Institute of Technology, hosted a 3-day hands-on Autonomous Robotics Workshop 'Lord of the Tracks 1.0' during 20-22 February 2018. The IEEE ED HIT SBC helped in organizing the initiative. Ten teams comprising of 40 students from second year B.Tech. ECE participated in the workshop. The teams were mentored and guided by 10 student member volunteers, Student Branch Counselor Dr. Mousiki Kar and ED HIT SBC Advisor Dr. Atanu Kundu.
- Motivated by the overwhelming response and requests from students another 3-day hands-on Autonomous Robotics Workshop 'Lord of the Tracks 2.0' was organized during 13-15 March 2018. The workshop was proactively executed by 10 student member volunteers, Student Branch Counselor Dr. Mousiki Kar and ED HIT SBC Advisor Dr. Atanu Kundu. A total of 45 students from 2nd year B.Tech. ECE participated in the workshop hosted at the IEEE EDS Center of Excellence, Heritage Institute of Technology, Kolkata, India. Participants and mentors of 'Lord of the Tracks 2.0' held during 13-15 March 2018
- In order to spark an interest among the undergraduate students for research in the domain of electron devices, the next initiative of the Center was to organize a lecture session by IEEE EDS Distinguished Lecturer, Prof. Yogesh Singh Chauhan from Indian Institute of Technology, Kanpur. The lecture was held on 12th April 2018. Prof. Chauhan delivered a talk on ‘Negative Capacitance Transistors – Physics, Modeling and Processor Performance’. The talk was attended by 191 undergraduate student participants.
- The IEEE Electron Devices HIT Student Branch Chapter and IEEE EDS Center of Excellence organized a Lecture Session by Prof. Vincenzo Piuri on 24.09.2018. Prof. Vincenzo Piuri is a professor of Computer Engineering at the Università degli Studi di Milano. He is Fellow of the IEEE and Distinguished Scientist of ACM. He spoke on the topic 'Ambient intelligence: convergence

of artificial intelligence, machine learning, biometrics, cloud-computing, and internet-of-things'. The talk was attended by 374 participants.

- A talk titled 'Microelectronics Technology' was delivered by Prof. S.N. Biswas, Former Professor IEST and HITK on 21.11.2018. The talk was attended by 285 participants.

Calcutta University Student Branch

PROGRAMS AND ACTIVITIES

Program/Event	Title/Topic	Speaker	Date	Venue	No. of Participant	IEEE Member
1. Outreach Program (As joint organizer with IEEE Photonics Society Calcutta Chapter)	Lecture 1: Application of photonic devices in daily life	Prof. P. K. Basu,	10.03.2018	Badaldih High School, Purulia, West Bengal	140 (Students = 110)	15
	Lecture 2: Light around us	Prof. N. R. Das (PS Chapter Chair)				
	Model Demonstration (Basic Science & Light based)	Members of IEEE CU Student Branch				
2. Technical Lecture	Artificial Intelligence Models for Solar Energy Application	Prof. Vincenzo Piuri, former member of IEEE BoD, & Vice President Technical Activities	21.09.2018	University College of Science and Technology, CU	150	23
3. Science Exhibition and competition (STEX-18)	(i) Exhibition of Models (ii) Model Competition	NA	05.10.2018	Institute of Radio Physics and Electronics (IRPE), University College of Sc. and Tech., CU	76 (No. of Model - 8)	16
4. Branch Meeting	(i) Discussing about outreach program for science day celebration	NA	16.02.2018	IRPE, University College of Sc. and Tech., CU	32	10
	(ii) Planning for upcoming events for the year	NA	03.04.2018	IRPE, University College of Sc. and Tech., CU	38	10
	(iii) Planning for Science and Technology Exhibition cum Competition 2018 (STEX, 2018)	NA	16.05.2018	IRPE, University College of Sc. and Tech., CU	36	15
	(iv) Discussing about progress of work for STEX'18	NA	10.07.2018	IRPE, University College of Sc. and Tech., CU	30	10
	(v) Selection of Volunteers and job distribution for the day of event (STEX-18)	NA	04.10.2018	IRPE, University College of Sc. and Tech., CU	30	14

BRIEF DESCRIPTION OF PROGRAMS

1-OUTREACH PROGRAMME FOR SCIENCE DAY CELEBRATION

The IEEE Calcutta University student branch jointly with IEEE Photonics Society Calcutta Chapter organized an outreach program on 10th March, 2018 in Badaldih High School, Purulia to celebrate National Science Day. The program was aimed to increase awareness and interest in science among the students of different schools. The participants were around 100 in number (Class IX – XI) from Badaldih high school and seven other schools from neighboring areas. After the inaugural function presided by Sri P.C.Mahato, the Headmaster of that school, there were two lectures by Prof. P.K.Basu and Prof. N.R.Das on “Application of photonic devices in daily life” and “Light around us” respectively. The main emphasis of the program was demonstration of Hands-on models on different aspects of basic and applied sciences prepared by students of IEEE student branch of Calcutta University and members of IEEE Photonics Society Calcutta Chapter.

The models were on Electricity, Magnetism/ Electromagnetism, properties of Light, Heat and few daily life usages of science and technology demonstrated by Paulami Rakshit, Shampa Guin, Sonali Basak, Santu Sarkar, Soumyadip Das, Shreerupa Biswas, Piyali Mukherjee, Anamika Das, Moubani Bandyopadhyay and Madhusudan Mishra.

The program was very successful which was reflected from the feedback of students and teachers. They also requested us to organize such program in future.

2- A SEMINAR TALK BY Dr. VINCENZO PIURI

IEEE Calcutta University Student Branch, jointly with IEEE Kolkata Chapters of Photonics-S, ED-S, AP-S & MTT-S organized a seminar by Dr. Vincenzo Piuri, former member of IEEE BoD and Vice President Technical Activities, Professor of University of Milan, Italy on 21st September 2018. It was held in the University College of Science and Technology (MeghnadSaha Auditorium, 92 APC Road, Kolkata-9), University of Calcutta. The title of the talk was “Artificial Intelligence Models for Solar Energy Application”. The programme was quite successful with 150 numbers of audiences and financial support from all joint organisers.

3- SCIENCE AND TECHNOLOGY EXHIBITION CUM COMPETITION-2018 (STEX'18)

The IEEE Calcutta University Student Branch jointly with the IEEE Photonics Society Kolkata Chapter organized its 3rd Science and Technology Exhibition -2018 (STEX'18) on 5th October 2018 at the Institute of Radio Physics and Electronics of the University of Calcutta. The financial support and guidance of organizing the event were provided by the Photonics Society Kolkata Chapter. The event was technically cosponsored by INAE Kolkata Chapter and West Bengal Academy of Science and Technology. The event was an exhibition cum competition of Models on Science and Technology. The students of different colleges and universities have been participated to exhibit their models in this event. There were in all 8 (eight) models presented by students (not more than four students per Model) of different Institutions like Narula Institute of Technology, Academy of Technology, Techno India, Jadavpur University and University of Calcutta. The models were open for exhibition. Dean (Tech) of the University of Calcutta spent a long time to see the models in the exhibition and encouraged the students. The models were evaluated by three judges. The best three Models were awarded with Trophies and certificates. The topper was a model on “LOW COST GESTURE CONTROLLED WHEEL CHAIR” by a group of 4 students from Narula Institute of Technology Engineering College.

The second prize went to a group jointly from the University of Calcutta and Jadavpur University and the third prize went to two models from Narula Institute of Technology and Academy of Technology. Certificates were distributed to all the registered participants of Models as well as to the volunteers involved in this program. The full enthusiasm of the hosting and participating students throughout the day reflected the grand success of the event.

DEIS Chapter

Title of the Activity: Circuistic of Convolution 2018

Organized by: Students of the Department of Electrical Engineering, Jadavpur University in Collaboration with IEEE DEIS Kolkata Chapter.

Date: 23rd -25th February, 2018

Venue: Electrical Engineering Department, Jadavpur University

Circuistic 5.0, organized by the Students of the Department of Electrical Engineering, Jadavpur University, Kolkata, India, in collaboration with DEIS Kolkata Chapter, was a competition where students from various institutions in groups took part in making circuit solutions related to practical engineering problems. There were 3 separate competitions this year under this event, namely, Junior Group for the first year students, Sophomore Group for the second year students and Senior Group for third and fourth year students. Design competition part lasted for six hours. The Jury comprised of eminent academicians and technologists to judge the award winners of the competition. Accordingly prizes and certificates were given to the participants holding the first, second and the third positions in Junior Group, first and second prizes for the Sophomore Group and only first prize was given for Senior Group. There were in total 180 participants (45 teams approx.) in this event this year.

A. Workshop:

Title of the Workshop: Advanced Renewable Energy System and its implications on Electrical Insulation (ARESIEI-2018)

Speaker:

Prof Saibal Chatterjee, Professor, Dept of Electrical Engineering, NERIST
Prof Debasish Chatterjee, Professor, Dept of Electrical Engineering, Jadavpur University
Prof S Gao, Professor, Dept of Electrical Engineering, NERIST
Mr. Sudipto Poddar, Field Engineer, Marketing, Quarbz Info Systems
Mr. Pranay Kumar, Application Engineer, Quarbz Info Systems

Topic Discussed:

DTC and Vector control of Induction Motor Drive; Vector control of PMSM, SRM and BLDC Drives; Power Electronics in Wind energy systems; Grid integrated Power Converters; Converter typologies for stand-alone and grid connected solar PV; Advancement of Wind energy conversion systems and its recent challenges; Generation and Measurement of High Voltage for testing Insulation.; Condition Monitoring of Equipment and PD Testing

Date: From 19th-23rd February, 2018

Venue: Electrical Engineering Department, Jadavpur University

Participants: 61 Students from NIT AP; 5 From NERIST; 5 Faculty from NIT AP, 1 Faculty From NERIST.

B. Technical Lecture Meeting:

Event-I

Title of the Talk: High Voltage Power Supply: Microcontroller Based Control Techniques.

Speaker: Dr. Biswendu Chatterjee

Date: 11th July, 2018

Venue: Seminar Room, Electrical Engineering Department, Jadavpur University, Kolkata 700032

Event Participation: There were 44 participants in this lecture meeting out of which 6 were IEEE members. A large number of interested students took part in this lecture.

Event –II

Title of the Talk: Condition Monitoring of High Voltage Equipment.

Speaker: Dr. Arpan Kumar Pradhan

Date: 19th September, 2018

Venue: Seminar Room, Electrical Engineering Department, Jadavpur University, Kolkata 700032

Event Participation: There were 32 participants in this lecture meeting out of which 6 were IEEE members. A large number of interested students took part in this lecture.

C. Other Activities:

Title of the Activity: SPARKZ, State Level Inter College Electrical Engineering Quiz Competition

Date: 31st March, 2018

Venue: Pailan Technical Campus, Kolkata – 700104

Organized by: Department of Electrical Engineering, Pailan Technical Campus

Event Participation: There were 25 teams in this activity.

PART C - OTHERS

C.1 Relationship with National Societies

- The relationship with National Societies like The Institution of Engineers (India), The Institute of Electronics & Telecommunication Engineers India, Computer Society of India is cordial.

C.3 Problems to be Anticipated

- ✓ Involvement of members in section activities not as per expectation
- ✓ Limited participation of section volunteers in national and international committees
- ✓ Limited Funding for attending conference
- ✓ Number of members from industry is low
- ✓ Student member retention is low and some student branches become inactive - explore possibility of re-opening of student branch through incentive schemes . However new student branches are formed and new members are added every year

C.4 Best Practices of your Section

- ✓ Active student branches
- ✓ Active participation of local students in IEEE activities

PART D – GOALS AND PLANS

D.1 Goals

- Retention of existing members through membership development Programs like elevation to Senior Member grade, recognizing the efforts of active members by awarding them citations or personalized plaques.
- Increasing activities of section by arranging more lecture meetings, not necessarily technical but also on public affairs, professional activities, educational trips for students to nearby industries.
- To spread the message of IEEE within Kolkata Section jurisdiction.

D.2 Implementation Plans

- To organize one day Program involving all Branch Counsellors from all student branches.
- To organize meeting with other out stationed chapters and Bhubaneswar Subsection
- To organize some special memorial lecture in each year.